EXHIBIT 4

Response to the Supplemental Report of Dr. Swanson

I was asked to respond to Dr. Swanson's supplemental report dated May 22, 2024. In that report, Dr. Swanson raised concerns about the weighting scheme of the Cooperative Election Survey (CES), offering arguments for his opinion that the Current Population Survey (CPS) and the Mississippi Poll from the SSRC of the Mississippi State University are superior measures of voter turnout by race. He also introduced a new source, "Growing Racial Disparities in Voter Turnout, 2008-2022," to support his claims that there is no turnout gap in Mississippi.

Sample Weights and the CES

Dr. Swanson discusses sample weighting throughout his report, including in paragraphs 4, 5, 9, 10, 11, and 12. According to the American Association of Public Opinion Research (AAPOR):

> Weighting adjusts the poll data in an attempt to ensure that the sample more accurately reflects the characteristics of the population from which it was drawn and to which an inference will be made. Weighting is used to adjust the relative contribution of the respondents, but it does not involve any changes to the actual answers to survey questions.[1]

Like most surveys, the CES uses weights to ensure that its respondents are representative of the population of interest.

Dr. Swanson argues (at paragraph 5) that "sample size and weights cast doubt on the value of the CES in supporting opinions offered by Dr. Burch." He appears to be arguing in paragraphs 10 and 11 in his report that because the CES weights count some Black respondents more than once, these respondents are "influential," thus casting doubt on the turnout gap between Black and White respondents in the CES. Essentially, he is arguing that the "influential" Black respondents are skewing the results and therefore that the racial gap in turnout that I find is artificial.

However, Dr. Swanson never shows that the large turnout gap that I find in the CES is dependent on these supposedly "influential" Black people. The CES adheres to the standards of the American Association of Public Opinion Research. It is used in published articles in top political science journals. It is fielded by dozens of researchers across the United States, led by a team from Harvard and MIT. Using weights of 5 or 10 or 15 is normal and not uncommon or invalid. In fact, the CES weights are trimmed to a maximum of 15 to prevent the very problems with extreme weights that Dr. Swanson raises.[2]

Moreover, Dr. Swanson's insinuation that the turnout gap between Black and White Mississippians in the CES is due to extreme weights is unfounded. In my earlier report, I calculated validated voter turnout using the "commonweight" and not the "commonpostweight"

[1] American Association for Public Opinion Research. "Weighting." Available online https://aapor.org/wp-content/uploads/2023/06/weighting.pdf. Accessed 10 June 2024.

[2] CES Guide 2020 pp. 15-16.

weighting scheme.[3] As I show below, the turnout gap between Black and White Mississippians in the CES remains large and statistically significant even after trimming the values in the "commonweight" that are higher than 5 to 5. (Trimming weights in this way may produce biased estimates, but I do so here to make a simple point: the concerns that Dr. Swanson raises are not valid.)

Race	Validated Turnout Full Sample	Validated Turnout Weights <=5
White	59.5% (N=299)	59.0% (N=295)
Black	46.1% (N=217)	47.2% (N=199)

Even after reducing the weight of the people Dr. Swanson flags as "influential" in the second column, the turnout gap between Black and White Mississippians still is greater than 10 percentage points.

The Mississippi Poll and the CPS

Dr. Swanson argues in his report (at paragraphs 6, 7, 8, 9, and 12) that the CPS and the Mississippi Poll are superior to the CES, despite the consensus in the literature. As I have shown previously, scholars have raised serious doubts about the accuracy of the CPS;[4] even the Brennan Center Report that Dr. Swanson cites states that the CPS "actually understates the magnitude of the turnout gap."[5] The problem with the CPS is that it relies on self-reported voter turnout, which "is affected by problems such as recall bias and social desirability, and hence reported turnout tends to have an upward bias when compared to data on actual turnout."[6]

The Mississippi Poll may be even worse than surveys like the CPS that use self-reported voter turnout, because it measures self-reported "turnout intention." Self-reported turnout intention "is likely to be even more prone to social desirability bias and is therefore not used often."[7] As a result, comparatively few academic studies of turnout rely on this measurement.[8]

---

[3] Moreover, I have repeatedly noted that the CES analysis is separate from the EI analysis of turnout in my original report.

[4] Ansolabehere, Stephen, Bernard L. Fraga, and Brian F. Schaffner. "The current population survey voting and registration supplement overstates minority turnout." *The Journal of Politics* 84, no. 3 (2022): 1850-1855.

[5] Morris, Kevin and Coryn Grange. "Growing Racial Disparities in Voter Turnout, 2008-2022." The Brennan Center for Justice. P.5

[6] Smets, Kaat, and Carolien Van Ham. "The embarrassment of riches? A meta-analysis of individual-level research on voter turnout." *Electoral studies* 32, no. 2 (2013): 344-359. P. 347.

[7] Smets and van Ham 2013: 374.

[8] Smets and van Ham 2013: 374.

In contrast, the CES uses validated turnout data, which "is the most robust" measure of voter turnout.[9] And the principal investigators benchmark the survey to known data as a test of its validity (for instance, in the CES guide, the vote share in statewide offices is provided as a benchmark).

These considerations about the quality of the survey and dependent variable are important, especially in light of Dr. Swanson's claims in his new report (at paragraphs 7, 8, and 9) about sample size. Bigger is not always better. In particular, one does not get better results from a bad question measured for more people than a good question measured for fewer people. There are many examples of bigger sample sizes being inferior for different reasons in statistics. For example, analyses of large data sets can lead to biased inferences because of sampling bias:

> But if 3,000 interviews were good, why weren't 2.4 million far better? The answer is that sampling error has a far more dangerous friend: sampling bias. Sampling error is when a randomly chosen sample doesn't reflect the underlying population purely by chance; sampling bias is when the sample isn't randomly chosen at all.[10]

The point is that big samples can make issues of bias worse. Dr. Swanson, in comparing the sample sizes of the Mississippi Poll and the CPS to the CES, mistakenly argues that bigger is better, despite the fact that the bigger data sets measure voter turnout in ways that are known to be biased (*i.e.*, measurements based on unverified self-reporting).

The Brennan Center Report

Turning now to the Brennan Center report, Dr. Swanson describes the Brennan Center methodology (in paragraph 12 of his report) as "not dissimilar to those used in the CES." This is a mischaracterization of the report and its findings.

First of all, the Brennan Center analysis differs significantly from the CES in that it is not a sample-based survey at all.[11] Instead, the Brennan Center uses voter files from vendors such as Catalist and L2 to get a list of voters from each state. The analysts then impute race for each Mississippi voter using BISG, or Bayesian Improved Surname Geocoding. BISG uses information on racially-identifiable surnames, coupled with racial composition of a voter's census tract, to predict voters' races. While BISG has been used in some analyses to impute race, particularly in conjunction with other methods, scholars still are raising concerns about the accuracy of racial imputation using BISG.

---

[9] Smets and van Ham 2013: 374.

[10] Harford, Tim. 2014. "Big Data: Are We Making a Big Mistake?" *Significance.* Available online https://rss.onlinelibrary.wiley.com/doi/pdf/10.1111/j.1740-9713.2014.00778.x. Accessed 10 Jun 2024.

[11] Dr. Swanson writes (in paragraph 12) that the Brennan Report "acknowledges the effect of extreme weights in its sample data." This is necessarily incorrect, as the Brennan Report uses the voter file rather than a weighted sample.

BISG sometimes produces errors in predicting the race of voters.[12] Morris and Grange report that in their analysis for the Brennan Center report, the county-level error rate in the predictions of Black turnout in southern states for which race is available is 14.1 percentage points *on average* due to the misclassification of Black voters.[13] And they do not report the level of misclassification for their model for Mississippi in particular.

Second, the Brennan Center report does not actually report voter turnout rates for Black or White voters in Mississippi. Instead, they report a different statistic, the amount by which the state turnout would change if Black people in the state voted at the same rate as White people in the state. The authors imply, but do not show, that their calculations of Black turnout in 2020 were higher than those for White people; the report also implies that turnout in 2022 was higher for White people than for Black people. We do not know the size of these gaps and are not provided with any direct estimate of turnout.

The Brennan Center analysis is not a peer-reviewed publication, and the underlying data and code used are not public. In the Brennan Center report, baseline turnout estimates are not reported and there is no information about how the researchers handled missing data (addresses that could not be geocoded, for example) or whether and how they corrected their BISG estimates for bias. Mississippi-specific point estimates of turnout, or Mississippi-specific analyses of racial misclassification bias or error rates, are not reported and therefore cannot be assessed.

For these reasons, I would caution against relying on the Brennan Center analysis to assess voter turnout in Mississippi, especially in isolation and especially given the lack of information to confirm the Brennan Center's estimates against known benchmarks.

Traci Burch, Ph.D.

---

[12] Imai, Kosuke, Santiago Olivella, and Evan TR Rosenman. "Addressing census data problems in race imputation via fully Bayesian Improved Surname Geocoding and name supplements." *Science Advances* 8, no. 49 (2022): eadc9824. McCartan, Cory, Jacob Goldin, Daniel E. Ho, and Kosuke Imai. "Estimating Racial Disparities When Race is Not Observed." *arXiv e-prints* (2023): arXiv-2303. Argyle, Lisa P., and Michael Barber. "Misclassification and bias in predictions of individual ethnicity from administrative records." *American Political Science Review* 118, no. 2 (2024): 1058-1066.

[13] Morris and Grange Appendix, pp. 4-5.

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF MISSISSIPPI
GREENVILLE DIVISION

DYAMONE WHITE, et al., Plaintiffs, vs. STATE BOARD OF ELECTION COMMISSIONERS, et al., Defendants.	No. 4:22cv62-MPM-JMV

DECLARATION OF TRACI BURCH

I, Traci Burch, make the following declaration based on personal knowledge:

I have been retained by the Plaintiffs in the above referenced matter as expert.

I submit that the foregoing report from me is a true and accurate copy of the report I provided to Plaintiffs in this matter. I declare that the information and opinions contained in the report are true and correct to the best of my knowledge.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Dated: June 19, 2024

Traci Burch